GOVERNMENT ARTS COLLEGE (AUTONOMOUS), KARUR – 639 005

M.SC.GEOGRAPHY COURSE STRUCTURE UNDER CBCS SYSTEM

(For the candidates admitted from the year 2016-17 onwards)

SEMESTER	COURSE	SUBJECT TITLE	SUBJECT CODE	INSTR. HOURS WEEK	CREDIT	EXAM HOURS	MARKS		TOTAL
							INT	ESE	
I	Core Course – I	Applied Climatology	**P16GE1C1**	6	5	3	**25**	**75**	100
	Core Course – II	Urban Geography	**P16GE1C2**	6	5	3	**25**	**75**	100
	Core Course – III	Geography of India	**P16GE1C3**	6	5	3	**25**	**75**	100
	Core Course – IV	Practical-I:Terrain & Climatic Data Analysis	**P16GE1C4P**	5	4	3	**40**	**60**	100
	Elective Course - I	Population Geography	**P16GE1E1**	5	4	3	**25**	**75**	100
				28	**23**				**500**
II	Core Course – V	Remote Sensing Techniques and Applications	**P16GE2C5**	6	5	3	**25**	**75**	100
	Core Course – VI	Principles of Geomorphology	**P16GE2C6**	6	5	3	**25**	**75**	100
	Core Course – VII	Principles of Thematic Cartography	**P16GE2C7**	6	5	3	**25**	**75**	100
	Core Course – VIII	Practical-II: Socio – Economic Data Analysis	**P16GE2C8P**	5	4	3	**40**	**60**	100
	Elective Course – II	GIS & GPS: Techniques and Applications	**P16GE2E2**	5	4	3	**25**	**75**	100
				28	**23**				**500**
III	Core Course – IX	Agricultural Geography	**P16GE3C9**	6	5	3	**25**	**75**	100
	Core Course – X	Research Methodology In Geography	**P16GE3C10**	6	5	3	**25**	**75**	100
	Core Course – XI	Geographic Thought	**P16GE3C11**	6	5	3	**25**	**75**	100
	Core Course - XII	Practical-III Statistical Techniques and Cartographic Methods	**P16GE3C12P**	5	4	3	**40**	**60**	100
	Elective Course – III	Political Geography	**P16GE3E3**	5	4	3	**25**	**75**	100
				28	**23**				**500**
IV	Core Course – XIII	Regional Planning	**P16GE4C13**	6	5	3	**25**	**75**	100
	Core Course – XIV	Practical-IV: Techniques of Remote Sensing and GIS	**P16GE4C14P**	5	4	3	**40**	**60**	100
	Elective Course – IV	Environmental Appraisal & Management	**P16GE4E4**	5	4	3	**25**	**75**	100
	Elective Course – V	Geography of Travel and Tourism	**P16GE4E5**	5	4	3	**25**	**75**	100
	Project Work	Project work	**P16GE4PW**	15	4	3	**	**	100
				36	**21**				**500**
TOTAL				**120**	**90**				**2000**

** Dissertation – 80 Marks and Viva Voce Examinations – 20 Marks

CHAIRMAN

BOARD OF STUDIES IN GEOGRAPHY CONTROLLER OF EXAMINATIONS

Sl. No.: **Subject Code:** P16GE1C1

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –I - SEMESTER – CORE COURSE -I

(For the candidates admitted from the year 2016 -17onwards)

APPLIED CLIMATOLOGY

Unit – I

Composition and structure of Atmosphere: Definition – Weather and Climate – Climatic Elements – Composition and Structure of Atmosphere – Insolation – Heat Budget - Horizontal – Vertical Distribution of Temperature – Temperature Inversion

Unit-II

Air Pressure: Atmospheric Pressure – Horizontal and Vertical Distribution. Winds: Planetary – Periodic and Local – Atmospheric Moisture; Condensation - Forms, Precipitation: Forms and Types

Unit-III

Air Masses, Fronts and Atmospheric Disturbances: Air Masses and Fronts: Concepts and Types; Cyclones: Tropical and Temperate; Anti Cyclones – Monsoons – Jet Streams.

Unit-IV

Classification of Climate – Koppen's and Thronthwaite's – Weather Forecast, Weather Satellite – Climatic Regions of the World

Unit-V

Climate Change & Its Impact: Green House Effect – Global Warming - Ozone Depletion – Heat Island – Acid Rain: **Impact of Climate Change on:** Agriculture, Industry and Housing.

Reference:

1. Trewartha, G.T. (1968) Introduction to climatic McGraw Hill, New York.
2. Critch field H.J., (1975), General Climatology, Prentice Hall, New Delhi.
3. Lal D.S. (1986) Climatology, Chaitanya Publishing house, Allahabad
4. Smith, Applied Climatology

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Sl. No.: **Subject Code:** **P16GE1C2**

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –I - SEMESTER – CORE COURSE -II

For the candidates admitted from the year 2016 -17onwards)

URBAN GEOGRAPHY

Unit – I

Meaning and Scope of Urban Geography – Origin and Evolution of Towns – Location and Sitting of Towns – Functional Classification of Towns – Morphology of Towns

Unit – II

Urbanization: Trends and Patterns – World and India; The Internal Structure of Cities – CBD – Delimitation and Characteristics

Unit –III

Theories and Models in Urban Studies: Concentric Zone Theory – Sector Theory and Multiple Nuclei Theory; Urban System: The Central Place Theory – Primate City - Distribution – Rank Size Rule – Chennai Metropolitan City.

Unit – IV

Urban Expansion –Horizontal and Vertical – Urban Sprawl – Rural - Urban Fringe – Concept of Satellite and Dormitory Towns – Conurbation – Metropolis – Concept of City Region

Unit – V

Urban Environmental Problems: Urban Housing – Growth of Slums – Solid Waste and its Management – Water Supply and Transport – Pollution – Urban Planning

Reference:

1.Jones.E (1970) Towns and Cities , Oxford University Press.

2.Yeates and Corner: The North American City Harper and Row

3. Carter, H. the study of Urban Geography – Edward Arnold, London.

4. Major and Kohn, Readings in urban Geography, Central book Dept. Allahabad.

5.Northam, U.K.: Urban Geography, John Wiley and sons

6.Johnson . J.H. Urban Geography, Pergaoan.

7. urban geography by R.B. Mandal

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Sl. No. | **Subject Code: P16GE1C3**

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY – I SEMESTER – CORE COURSE -III

(For the candidates admitted from the year 2016-17onwards)

GEOGRAPHY OF INDIA

UNIT – I

India: Location, Extent and Significance - as a Geographical Unit - Physiography- Relief; Rivers- Distribution Sources of Irrigation, Multipurpose River Valley Projects,

UNIT-II

Climate: Controlling Factors - Seasons- Climatic Regions; Soil Types and Distribution- Soil Erosion and Conservation Methods; Natural Vegetation: Types, Distribution and Uses.

UNIT- III

Agriculture: Salient Features and Problems-Farming Types-Major Food Crops and Regions- Rice, Wheat and Millets; Commercial Crops: Sugarcane, Cotton and Jute. Plantation Crops- Tea, Coffee and Rubber; Livestock Wealth – Fisheries

UNIT-IV

Mineral Resources: Iron, Manganese, Bauxite, Copper- Distribution and Production- Power Resources: Coal, Oil, Hydro – Electricity, Thermal and Atomic Power Development –Distribution and Production; Non – Conventional sources of enegery- Industries: Agro-Based Industries- Cotton, Jute, and Sugar. Metallurgical Industries: Iron and Steel, - Automobiles and Locomotive; Ship Building - Chemical - Paper and Fertilizer.

UNIT-V

Population: Distribution and Density; Transport: Roadways, Railways, Airways and Water Ways; Trade: Inland and Foreign- Export and Import.

Reference

1. Gopal Singh- Geography of India (1970)
2. Singh.R.L. India- a regional Geography, UBS publishers & Distributers Ltd, Seena Publication.
3. Spate O.H.K. India and Pakistan, Mathunan & Co (1970)
4. Sharma and Coutinho- Economic and Commercial Geograpy- vikas publishing house Pvt.Ltd., New Delhi (1998)
5. Shanthi Swaroop – Geography of India , King /books Educational Publishers (1998).
6. Tikkha. R.N- Geography of India, New academic Publishing co, Jalandar (1998)
7. Indian Stattistical Books.
8. D.R.Khuller -India: A Comprehensive Geography

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Sl. No.: | **Subject Code:** P16GE1C4P

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –I - SEMESTER – CORE COURSE – IV

(For the candidates admitted from the year 2016-17 onwards)

Practical I-TERRAIN AND CLIMATIC DATA ANALYSIS

Unit – I

- Methods of Depiction of Relief
- Spot Heights
- Bench marks
- Triangulation Station
- Hachuring
- Hill Shading
- Layer Tinting

Unit – II

- Drawing Profiles
- Simple
- Serial
- Superimposed
- Projected
- Composite
- Longitudinal

Unit – III

- Climatic data Analysis
- Foster's Climograph
- Taylor's Climograph
- Climatograph
- Rainfall Dispersion Diagram
- Octagonal Wind Rose
- Tracking of Cyclone

Unit –IV

- Morphometric Analysis
- Identification of Stream Orders
- Bifurcation Ratio
- Drainage Density

Shape Measurement

- Miller's Circularity Ratio
- Boyce Clark Method
- Length Breadth Ratio Method

Unit – V

- Slope Analysis:
- Wentworth
- Smith
- Robinson Methods

Reference:

1. Gopal singh, Map Work and Practical Geography, Vikas publishing house Pvt.Ltd. New Delhi.
2. Misra, R.P., and Ramesh .A (1989) Fundmentals of Cartography, concept publishing Co., New Delhi.
3. Rampal, K.K. mapping and Compilation – methods and techniques , concept publishing.
4. Singh R.L., Elements of Practical Geography, Kalyani Publishers, New Delhi.

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Sl. No.: | **Subject Code:** P16GE1E1

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –I - SEMESTER – ELECTIVE COURSE – I

(For the candidates admitted from the year 2016 -17onwards)

POPULATION GEOGRAPHY

Unit – I

Introduction to Population Geography: Nature and Scope of Population Geography- Types, Sources and Problems of Population Data: Census, Sample Survey and Vital Registration System.

Unit – II

Distribution and Density of population: Factors affecting Population – Distribution and Density of World Population– Types of Population Densities.

Unit –III

Growth of Population and Population Theories : Components of Population Growth: Fertility, Mortality and Migration- Types of Migration, Determinants and Consequences of Migration- Malthusian Theory, Demographic Transition Theory by W.S. Thompson.

Unit – IV

Patterns of Population Composition: Biological Characteristics of Population: Racial Composition, Age – Sex Composition and its Determinants, Cultural Characteristics of Population: Religious, Linguistic and Educational Composition.

Unit – V

Population and Resource Study: Resources: Human Resource – Natural Resource – Population Resource Ratio; Over – Under – Optimum Populations; Population and Resource Regions.

Reference:

1. Ghosh. B.N (1987): Fundamentals of Population Geography, Sterling Publishers, Ltd, New Delhi.
2. Hansraj. (1981): Introduction to Demography, Surjeet Publication, New Delhi.
3. Clarke John.I (1981): Geography of Population- Approaches and Applications, Pergamon Press, Oxford.
4. Hornby William (1986): An Introduction to Population, Cambridge University Press, London.
5. Glenn. T.T.Trewartha: A Geography of Population – World Pattern, John willey and Sons Publications.

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Sl. No.: | | **Subject Code:** | P16GE2C5 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –II - SEMESTER – CORE COURSE – V

(For the candidates admitted from the year 2016-17 onwards)

REMOTE SENSING: TECHNIQUES AND APPLICATIONS

Unit – I

Remote Sensing: Fundamentals – Development of Remote Sensing - Electro Magnetic Radiation (EMR) – Energy Interactions with the Atmosphere and Earth – Remote Sensing Centers and Activities in India

Unit – II

Remote Sensing: Types – Aerial and Satellite, Types of Satellites, Aerial Photos, Platforms and Resolutions; Marginal information of Air Photo & Images – Elements of Air Photo & Image Interpretation.

Unit –III

Resolution and Sensor Characteristics: Spatial, Spectral, Radiometric and Temporal Resolutions of IRS, LANDSAT, SPOT, IKNOS and QUICKBIRD

Unit – IV

Digital Image Processing: Image Rectification and Restoration- Image Enhancement Techniques –Image Classification- Supervised & Unsupervised Classifications- Image Out Put

Unit – V

Application of Remote Sensing in Geography: Geomorphology, Land use/ Land cover, Agriculture, Forest, Water Resource, Urban Planning and Environmental Assessment.

Reference:

1. Thomas , M. Lillesand (1986): fundamentals of Remote Sensing, willey Sons, New York.
2. John. R. Jensen (2003): Remote Sensing of the Environment, Person Education, New Delhi.
3. Curran (1985) : Principles of Remote Sensing, Longman, London.
4. Lo.c.P.(1986): Applied Remote Sensing, Longman, London.
5. Narayanan, Applicaions of Remote Sensing, Hindu Publication.

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Sl. No.: | | **Subject Code:** | P16GE2C6 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –II - SEMESTER – CORE COURSE – VI

(For the candidates admitted from the year 2016 -17 onwards)

PRINCIPLES OF GEOMORPHOLOGY

Unit – I

Geomorphology: Nature, Scope and Development of Geomorphology- Recent Trends in Geomorphology – Geological Time Scale – Fundamental Concepts of Geomorphology –Origin of Earth – Theory on Origin of Earth - Kant , Binary and Nebular Hypothesis

Unit-II

Internal Processes: Isostasy, Continental Drift, Seafloor Spreading; Plate Tectonics: Plate Boundaries and Margins –Earthquake and Volcanoes: causes and effects- Zones.

Unit-III

External Process – Erosional, Transportational and Depositional landforms of Fluvial, Glacial, Aeolian, Coastal and Karst

Unit-IV

Mass movement and its types; Karst topography; Normal Cycle of Erosion by Davis and Penk; Morphogenetic Regions.

Unit-V

Applied Geomorphology: Applications of Geomorphology in Mineral Exploration, Oil Exploration, Hydrology and Terrain Evaluation

Reference

1. Thornbury W.D. (1969) Principles of Geomorphology. John Wiley and sons NewYork.
2. Strahler., A.N. & Strahler A.H. (1984) Elements of Physical Geography, John and Wiley.
3. P.Dayal (1990) Text book of Geomorphology, Shukla book depot.
4. Small . R.J (1975) the Study of landforms. Cambridge University press, Cambridge.
5. Sparks (1984) Geomorphology, Longmans.
6. Savindra singh (2002) Geomorphology, Kalyan Publications, New Delhi.

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Sl. No.: | | **Subject Code:** | P16GE2C7 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –II - SEMESTER – CORE COURSE – VII

(For the candidates admitted from the year 2016 -17 onwards)

PRINCIPLES OF THEMATIC CARTOGRAPHY

Unit – I

Nature and Scope of Thematic Cartography- Maps, Arerial Photos and Satellite Images; Types and Use; Cartography as a Science of Communication- Branches of Cartography

Unit – II

Mapping the Earth: Shape and Dimensions of Earth – Scale and Direction – Geographic Co-Ordinate System –International Dateline- Time calculation –Grid system- Remote sensing data for mapping.

Unit –III

Map Design and Compilation Procedures: Base Map Concept – Compilation and Generalization Principles – Designing Thematic Maps and Layout Principles – Lettering and its Positioning on Maps based on design.

Unit – IV

Thematic Mapping: Types - simple thematic map: Qualitative – semi-Quantitative – Quantative; Complex thematic map; Problems in thematic mapping: Data and their Representation – Selection of Map Projection – choice of base map – Generalisation of data – Standardization of Symbols – Compilation of data – Designing of maps.

Unit – V

Map Reproduction Methods – Use of Software Technologies in Reproduction - Planning for Reproduction - Computer Assisted Cartography

Reference:

1. Misra R.P. and Ramesh (1989): Fundamentals of Cartography, Concept publishing Co., New Delhi.
2. Neg. P.Ed., (1992): Cartography and Remote Sensing, Concept Publishing Company, New Delhi.
3. Robinson, A.H., Sale Morrinson J.L. and Muehrake 1985): Elements of Cartography, John Wiley Sons, New York.

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Sl. No.: | | **Subject Code:** P16GE2C8P

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –II - SEMESTER – CORE COURSE – VIII

(For the candidates admitted from the year 2016 -17 onwards)

PRACTICAL- II: SOCIO – ECONOMIC DATA ANALYSIS

UNIT-I

Preparation of graphs

- Simple graph
- Semi – log graph
- Triangular graph
- Lorenz curve

UNIT-II

Distribution Maps

- Mono dot Mapping
- Multi dot Mapping
- Choropleth Mapping
- Isopleth Mapping

UNIT-III

Agricultural Data Analysis

- Crop Concentration
- Crop Diversification

Crop Combinational Analysis

- Weaver's Method
- Doi's Method
- Rafiullah's Method

UNIT-IV

Simple Transport Network Analysis

- Connectivit
- Centrality
- Accessibility
- Alpha , Beta & Gamma Indices
- Detour Index

UNIT-V

Hypothesis Testing

- 'Chi' Square
- 'F' Test
- 't' Test

Reference:

1. Monkhouse and Wilkinson- Maps and Diagrams, Methuen &CO, Ltd. (1976)
2. PeterToyne & Peter T.Newby- Techniques in Human Geography' Macmillan Education Ltd., London., (1986).
3. Statistical Methods in Geography , Mcullah.

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Sl. No.: | **Subject Code:** P16GE2E2

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –II - SEMESTER – ELECTIVE COURSE – II

(For the candidates admitted from the year 2016 -17 onwards)

GIS AND GPS: TECHNIQUES AND APPLICATIONS

Unit – I

GIS and Spatial Data: Definition – Maps and Spatial Information – Geographical Information Systems: Components – Direction and Trends in GIS.

Unit – II

Spatial and Attribute Data Management: Spatial Entities – Raster and Vector – Spatial Data Structures – Comparison of Vector and Raster data Structures – Layered Approach and Object Oriented Approach – Problems of Data Management – Database Management System - Relational Database Model – Linking Spatial and Attribute data.

Unit –III

Data Input and Editing: Encoding Methods of Data Input: Keyboards, Manual Digitizing, Scanning and Automatic Digitizing Methods, Electronic Data Transfer; Data Editing: Methods of developing and Correcting Errors in Attribute and Spatial data; Reproduction, Transformation and Generalization – Edge Matching and Rubber sheeting.

Unit – IV

GIS Terminologies and Data Analyzing Operations: Buffering and Neibhourhood Functions – Raster and Vector Overlay Methods – Point in Polygon – Line in Polygon and Line on Polygon -DEM and TIN

Unit – V

GPS Survey Methods: Meaning – Components of GPS – System Requirements GPS Survey Methods– Elevation – Latitude and Longitude Reading with GPS – Application of GPS in Transport, Health Care and Crime Analysis.

Reference:

1. Kang-Sung chang (2002), Introduction to Geographical Information System, Tata Mcgraw Hill Publishing company Ltd, New Delhi.
2. Ian Heywood, et al (2003), An Introduction of Geographical Information Systems, Pearson Education Pvt. Ltd., Delhi.
3. Peter A. Burrough and Rachael A. Mc donnell (1998), Principles of Geographical Information System, Oxford university press, New York.
4. Lo.C.P. and Albert K.W. Yenns (2002), Concepts and Techniques of Geographical Information Systems, Pentice Hall of India Ltd, New Delhi
5. Anand P.H. (2003), Principles of Remote Sensing and GIS, Srivenkateswara Publishers, Kumbakonam.

CHAIRMAN – BOS **COE**

Sl. No.: | **Subject Code:** P16GE3C9

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –III - SEMESTER – CORE COURSE – IX

(For the candidates admitted from the year 2016 -17 onwards)

AGRICULTURAL GEOGRAPHY

Unit I

Agricultural Geography: Nature and Scope - Origin and Development of Agriculture - Objectives of Agricultural Geography; **Approaches to Agricultural Geography**: Commodity – Regional – Systematic.

Unit II

Physical Factors and Agriculture: Terrain: Topography and Altitude; Climate: Temperature, Sunshine, Frost, Moisture, Drought, Snow and Winds; Soils: Parent Material, Climate, Living Organism; **Socioeconomic Factors and Agriculture**: Land Tenancy, Size of Holdings and Fragmentation of Fields, Consolidation of Holdings and Operational Efficiency, Labour, Capital, Mechanization and Equipments and Government Policy.

Unit III

Agricultural systems of the world: Nomadic Herding, Livestock Ranching, Commercial Grazing, Shifting Cultivation, Sedentary Agriculture, Intensive Subsistence Agriculture, Intensive Agriculture, Extensive Agriculture, Mixed Farming, Dairy Farming, Horticulture, Collective Farms and State Farms.

Unit IV

Agricultural Regionalization: Delimitation of Agricultural Regions, Methodology for Agricultural Regionalization, Crop Combination Regions, Crop Diversification, Land Capability Classification in India; **Models in Agricultural Geography**: Vonthunen's and Jonasson's – Significance and Limitations

Unit V

Indian Agriculture: Characteristics of Indian Agriculture - **Green revolution in India:** Merits of High Yielding Varieties, Socioeconomic Constraints in the Adoption of High Yielding Varieties, Green Revolution and Rotation of Crops; Negative Impacts, Green Revolution and Social Tension and Ecological Implications of the Green revolution.

References

Majid Hussain, (1999): Systematic Agricultural Geography, Rawat Publications, Jawahar Nagar, Jaipur.

Hussain, M., (1979): Agricultural Geography, Inter India Publications, New Delhi.

Morgan, W.B. and Munton, R.J., (1972): Agricultural Geography, Methuen & Co., London.

Sing, Jasbir and S.S. Dhillon, (1994): Agricultural Geography, Tata McGraw-Hill Publications, New Delhi.

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Sl. No.: | | **Subject Code:** | P16GE3C10 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –III SEMESTER – CORE COURSE – X

(For the candidates admitted from the year 2016 -17 onwards)

RESEARCH METHODOLOGY IN GEOGRAPHY

Unit – I

Research methodology: Introduction- Meaning of Research- Objectives- Types - Approaches- Significance- Identification of Research Problem – Sources, Types and Components of Research Problem.

Unit – II

Research Design: Selection of Topic – Statement of Problem – Formulation and Testing of Hypothesis – Time Schedule – Literature – Role of Internet – Bibliography.

Unit –III

Data Acquisition and Analysis: Collection of Data –Sources of Data: Primary and Secondary, Structuring Data – Data Transformation - Simple Quantitative Techniques in Analysis of Data: Correlation, Regression, Chi-Square, F-Test and T-Test.

Unit – IV

Sampling Techniques: Introduction – Need for Sampling – Methods of Sampling: Probability Sampling Simple, Stratified, Systematic, Cluster or Multistage Random Samplings, Non-Probability Sampling: Judgment, Convenience, Quota and Snow Ball – Merits and Limitations.

Unit – V

Thesis writing: Organization of the Thesis: The preliminaries, the text and the Reference Materials- Drafting of Thesis- Language and Presentation (form and style)- Writing of Abstract and Project Proposal.

Reference:

1. Anderson.J., Durston, b.H and Poole, M., (1970), Thesis and Assignment Writing, wiley Eastern Ltd., New Delhi.
2. Cooray, P.G., (1992). Guide to Scientific and Technical Writing, Hindagala, Sri Lanka
3. Davis, j.C., (1986), Statistics and Data Analysis in Geology, John Wiley & Sons, New York.
4. Davis, W.K.D., (1972) The conceptual Revolution in Geography, university of London Press Ltd., London
5. Fitzgerald, B.P., ed. (1974), Science in Geography, series 1,2,3,4,5,and 6, Oxford University Press, London.
6. Hammond, R. and Mccullagh, P., (1978). Quantitative Techniques in Geography: An Introduction, Clarendon Press, Oxford.
7. Hanag, L.L., and Lounsbury, J.F., (1971). Research Methods in Geography, Brown Company Publishers, Iowa.

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Sl. No.: | | **Subject Code:** | P16GE3C11 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –III SEMESTER – CORE COURSE – XI

(For the candidates admitted from the year 2016-17 onwards)

GEOGRAPHIC THOUGHT

UNIT – I

Nature and Status of Geography: Global and Indian Perspectives - Changing Paradigms of Geography; Nature and Trends in Geographical Studies: Regional Geography, Development Studies, Environmental Studies, Area Studies and Behavioral Studies

UNIT – II

Origin and Development of Geography: Roman, Greek and Arabs; Explorations and Discoveries: Marco Polo, Christopher Columbus, Ferdinand Magellan, Vasco da Gama and Captain Cook.

UNIT –III

Contribution of Major Schools of Geography: Alexander Von Humbolt, Carl Ritter and Friedrich Ratzel: **French**: Vidal de La Blache, Jean Brunhes, Albert Demageon and Emmanuel de Martonne: **British:** L.D.Stamp, J.Mackinder, Peter Haggett, A.J. Herbertson: **American**: Ellen Churchill Semple, Huntington, W.M.Davis and Isaiah Bowman.

UNIT – IV

Ancient and Modern Indian Contributions to the Development of Geography: Contributions of Ancient Indians to the Development of Geography. **Development of Modern Geography in India in the fields;** Geomorphology, Climatology, Human Geography, Agricultural Geography and Urban Geography.

UNIT – V

Modern trends in Geography: Quantitative Revolution in Geography. Remote Sensing, GIS and GPS in Geography; Indian Organizations in Geographical Research: ISRO, Survey of India, Geological Survey of India and NATMO.

Reference:

1. Adhikari, S., (1992). Fundamentals of Geographical Thought, chaitanya Publishing House, Allahabad, India.
2. Freeman, R., (1970). Hundred Years of Geography, Hutchinson, London.
3. Hartshorne, R., (1959) Perspective on Nature of Geography, AAAG, Washington.
4. Harvay, D., (1972). Explanation in Geograohy, Edward Amold publications, London
5. Hussain, M., (1994), Human Geography, Rawat Publications, New Delhi, India.
6. Hussain, M., (1995), Evolution of Geographical thought, Rawat Publications, New Delhi, India.
7. Negi, B.S., (1994). Geographical Thought, Kedar Nath Ram Nath, Meerut, India.
8. Wayne Davis, K.D., (1972). Conceptual Revolution in Geography, University of London press, London

CHAIRMAN – BOS **COE**

Sl. No.: | | **Subject Code:** | P16GE3C12P |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –III SEMESTER – CORE COURSE – XII

(For the candidates admitted from the year 2016-17 onwards)

Practical- III: STATISTICAL TECHNIQUES AND CARTOGRAPHIC METHODS

UNIT-I

Types and Methods of Sampling

Geographical sampling

- Point , Line and Area

Random Sampling

- Simple random Sampling
- Systematic random Sampling
- Stratified random Sampling

UNIT- II

Graphical Representation of Frequency Distribution.

- Frequency Distribution
- Frequency Curve
- Frequency Polygon
- Histogram
- Cumulative Frequency Curve/ogive

UNIT-III

Measures of Central tendency& Geographical pattern

- Mean Centre
- Median centre
- Mean centre and standard distance
- Mode
- Rn Index

UNIT-IV

Measures of Dispersion

- Range
- Mean Deviation
- Quartile Deviation
- Standard Deviation
- Skewness
- Kurtosis

UNIT-V

Association Analysis

Simple Correletion

- Karl Pearson's Product Moment correlation
- Spearman's Rank correlation
- Simple Regression.

Reference:

1. Monkhouse and Wilkinson- Maps and Diagrams, Methuen &CO, Ltd. (1976)
2. PeterToyne & Peter T.Newby- Techniques in Human Geography' Macmillan Education Ltd., London., (1986).
3. Statistical Methods in Geography , Mcullah

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Sl. No.: Subject Code: P16GE3E3

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY –III SEMESTER – ELECTIVE COURSE – III

(For the candidates admitted from the year 2016 -17 onwards)

POLITICAL GEOGRAPHY

Unit-I

Political geography: Nature and Scope –Contemporary traditions in political geography – Approaches to Study – Its Relation to other Social Science Disciplines

Unit –II

Nation: Concept – Characteristics – Elements of Nation Building – Nationalism; State: Concept – Characteristics – Types ; Land Locked – Littoral – Island States

Unit- III

Frontiers and Boundaries: Evolution and Classification – Core Areas and Capitals, Centre – Periphery Relations

Unit- IV

Global Strategic Views; Heartland and Rim Land Theories – Indian Ocean Politics – International Relations – Multinational Organizations: Political, Economic and Cultural Blocks

Unit-V

Political Geography of India: Federalism - State Reorganization after Independence – Emergence of New States – India's Border Problems – Inter State Disputes with Tamil Nadu

Reference:

1. Alexander, L.M. World Political Patterns, London, 1964
2. Dikshit, R.D. Political Geography, New Delhi. 2004
3. Dwivedi, R.L. Fundamentals of Political Geography, Allhabad, 2010
4. Valkenburg, V. Elements of Political Geography, New York, 1957
5. Kasperson / Minghi, Structure of Political Geography, London

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Sl. No.: | | **Subject Code:** | P16GE4C13 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY – IV - SEMESTER – CORE COURSE – XIII

(For the candidates admitted from the year 2016 -17 onwards)

REGIONAL PLANNING

Unit -I

Planning and Regions: Meaning and Types of Planning – Meaning and Types of Regions, Need and Evolution of Regional Planning. Objectives of Regional planning– Interdisciplinary Nature of Regional Planning. Regionalism vs. Sectionalism.

Unit -II

Regional Imbalances and Problems in India: Regional Imbalances And Problem in the Distribution of Natural Resources (soil, forest, water and mineral), Agricultural Development, Industrial Concentration and Population Distribution. Need for Spatio-Temporal and Sectoral Planning.

Unit -III

Approaches to Regional Analysis: Geographic Approach – Economic Approach Sociological Approach – Holistic Approach; Regions for Planning in India

Unit -IV

Planning in India: Historical Development; Appraisal of Five-Year Plans and Annual Plans, Multi Level Planning, Planning Regions in India; Objectives and Achievements of Special Programmes; Drought Prone Area Programme, Tribal and Hill Area Development Programme, Backward Area Development Programme, National Watershed Development Programme.

Unit -V

Planning in Tamil Nadu: Evolution of Regional Planning in Tamil Nadu - Sate Planning Commission – Planning Regions of Tamil Nadu – District Planning Units and its Implementing Authorities. Panchayat Raj System – Power and Functions of Town Panchayat, Municipality and Corporation -CMDA

References

Misra R.P., (1992): Regional planning: Concepts, techniques, policies and case studies, Concept Publishing Company, New Delhi.

Misra, R.P, Sundaram, K.V and Prakasarao, V.L.S., (1947): Regional development planning in India, Vikash publishing house, New Delhi.

Mahesh Chand and Vinay Kumar Puri (1985): Regional planning in India, Allied publishers Pvt. Ltd., Delhi.

Prakasa Rao, V.L.S (1963): Regional planning, Asia Publishing House, Calcutta.

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Sl. No.: | | **Subject Code:** | P16GE4C14P |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY – IV SEMESTER – CORE COURSE – XIV

(For the candidates admitted from the year 2016 -17 onwards)

Practical – IV – TECHNIQUES OF REMOTE SENSING AND GIS

Unit – I

Aerial Photo

- Stereovision test
- Anatomy of pocket stereoscope

Unit - II

- Marginal Information of Aerial Photo
- Interpretation of Aerial Photo
- Determination of Scale

Unit – III

Satellite Image

- Marginal Information
- Visual Interpretation
- Digital Image Enhancement
- Image Classification

Unit -IV

- GIS Operations
- Scanning
- File Conversion
- Geo-Referencing
- Digitizing
- Generation of DEM and TIN

Unit – V

- GPS survey
- Thematic Mapping

Reference:

1. Principle of Aerial Photographic Interpretation – Luder,D.R. McGraw hill book, Co, London
2. Lillesand, T.M., and Keifer, R.W., (1994). Remote Sensing and Image Interpretation, John Wiley & Sons, New York.
3. Concepts and Techniques of Geographic Information Systems – Yeung, Albert, K.W., Prentice Hall of India Private Ltd, New Delhi
4. Sabins, F.F.Jr., (1987). Remote Sensing: Principles and Interpretation, W.H. Freeman &Co., New York.

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Sl. No.: | **Subject Code:** P16GE4E4

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY – IV - SEMESTER – ELECTIVE COURSE – IV

(For the candidates admitted from the year 2016-17 onwards)

ENVIRONMENTAL APPRAISAL AND MANAGEMENT

Unit I

Environmental Geography: nature and scope – components of environment - Environmental geography and related sciences – changing nature of concepts: Determinism, Posibilism, probablism and neo determinism

Unit-II

Concept and components of ecosystem - Structure and functions of Ecosystem - Food chain- Food web- food Pyramids; Nutrient cycles: Carbon cycle – Oxygen cycle – Nitrogen cycle – Phosphorous cycle.

Unit-III

Impact of Man On Environment: Soil erosion – deforestation – Mining – Pesticides – Air Pollution – Green house effect – Ozone depletion - Acid rain – Water Pollution – Thermal Pollution – Noise Pollution – Radioactive Pollution – 'E'-waste.

Unit-IV

Social Issues and Environment: Unsustainable to sustainable development – Urban problems related to energy – Water conservation – Resettlement and Rehabilitation of people – Climatic change – Wasteland reclamation.

Unit-V

Environmental planning and management: Concept of environmental management – Plans of environmental management – EIA: Meaning and Concept – Different stages in EIA process – Kyoto Protocol- Eye on Earth summit - Environmental legislation in India.

Reference:

Trivedi, R.N., (1997): A Text book of Environmental Sciences, Animal publications Ltd, New Delhi.
Barucha - Environmental Geography

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Sl. No.: | | **Subject Code:** | P16GE4E5 |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., GEOGRAPHY – IV - SEMESTER – ELECTIVE COURSE – V

(For the candidates admitted from the year 2016-17 onwards)

GEOGRAPHY OF TRAVEL AND TOURISM

UNIT-I

Scope and content- importance; Classification of travellers: Tourists - merchants- Explorers-Pilgrims; Factors influencing tourism; Tourism types: Religions-recreational - cultural – Ecological- Sporting – Medical – Domestic – International.

UNIT-II

Tourist Facilities and services: Transport – Accommodation – Catering – Entertainment; their role in the development of tourism; Travel Documents: Passport- Visa and its types – travellers cheque – credit cards.

UNIT-III

Tourism promotion: Advertisement – Sales support activates –public relations – marketing of tourist products; Travel Agencies - Tour operators and their functions; Types of hotels – motels - chaultries – guest house; their role in tourism promotion.

UNIT-IV

World Trade Organisation; Tourism organisation in India: Department of tourism in India – Ministry of Tourism – Indian Tourism Development corporation – Tamil Nadu Tourism Development corporation.

UNIT-V

A detailed study on major tourist sports in India: Delhi – Kolkatta – Mumbai – Hyderbad- Jaipur- Shimla- Holy places in North India ; Major tourist parts in Tamil Nadu: Chennai – Madurai – Ooty –Kodaikanal.

References:

1. Khan, M.A, (2005) introduction to tourism, Anmol Publication Pvt Ltd, New delhi.
2. Sangar, J.P., (2006) Tourism Management, Anmol Publication Pvt Ltd, New delhi.
3. Sharma, S.P., (2007) Tourism and Environment, Concepts, Principles and Approaches, Kanishka Publishes Distribution, New Delhi.

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Sl. No.: | | **Subject Code:** | **P16GE4PW** |

GOVERNMENT ARTS COLLEGE (AUTONOMOUS) KARUR-05

M.Sc., - GEOGRAPHY – IV SEMESTER – PROJECT WORK

(For the candidates admitted from the year 2016-17 onwards)

PROJECT WORK

SL.	Area of Work	Maximum Marks
1.	**PROJECT WORK:**	
	(i) Plan of the Project	**20**
	(ii) Execution of the plan / Collection of data / Organization of materials/ Fabrication Experimental study / Hypothesis, Testing etc., and Presentation of the report.	**45**
	(iii) Individual Initiative	**15**
2.	**VIVA VOCE EXAMINATION**	**20**
	TOTAL	**100**

PASSING MINIMUM – 50 MARKS

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